Title (en)

Estimation of probability of lambda failure through employment of lookup table

Title (de)

Schätzung der Wahrscheinlichkeit eines Lambdafehlers durch Einsatz einer Nachschlagetabelle

Title (fr)

Estimation de la probabilité d'une défaillance lambda par l'utilisation d'une table de consultation

Publication

EP 2113785 B1 20140319 (EN)

Application

EP 09159264 A 20090430

Priority

US 15111908 A 20080502

Abstract (en)

[origin: EP2113785A2] A method for estimating a probability of failure of a least-squares ambiguity decorrelation adjustment (LAMBDA) method is provided. The LAMBDA method is used for estimation of double difference carrier phase integer ambiguity. A plurality of condition sets are selected. Each condition set comprises a probability of failure (P boot-fail) for a boot-strap method of estimation of the double difference carrier phase integer ambiguity, a number of space vehicles (N sv), and a ratio test tolerance for the LAMBDA method. A plurality of Monte Carlo simulations are run on the plurality of condition sets to obtain a plurality of result sets. Each result set comprises a probability of lambda fail (P »-fail) and a probability of lambda reject (P »-reject) for one condition set of the plurality of condition sets. A lookup table is created with the plurality of result sets. A value of P »-fail for given values of P »-reject , P boot-fail , and N sv is estimated through employment of the lookup table.

IPC 8 full level

G01S 19/44 (2010.01); **G01S 5/14** (2006.01)

CPC (source: EP US)

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